Catalogue of American Amphibians and Reptiles.

Zug, G.R., C.H. Ernst, and R.V. Wilson. 1998. *Lepidochelys olivacea*.

Lepidochelys olivacea (Eschscholtz)
Olive Ridley Seaturtle, Tortuga Golfina, Lora

Chelonia multiscutata Kuhl 1820:78. Type locality not given. Type not designated. *Nomen oblitum*, see Comments.

Chelonia olivacea Eschscholtz 1829:2. Type locality, "der Bai von Manilla," Philippines. Syntypes, two examined but not explicitly designated; possibly deposited in Museum of Tartu but never reported, thus considered lost or destroyed (Smith and Smith 1980).

Chelonia Dussumierii Duméril and Bibron 1835:557. "Type locality," "les mers de la Chine et sur la côte de Malabar." Referred specimens, Museum National d'Histoire Naturelle, (NMNH) 7908 & 8009, entire dry adults. Substitute name for *Chelonia olivacea* Eschscholtz; an unnecessary substitution, hence a junior objective synonym, see Comments.

Caouana Ruppellii Gray 1844:53. Type locality, "India?" Holotype, The Natural History Museum, London, unnumbered skull; specimen missing (*fide* C.J. McCarthy and C.H. Ernst, August 1996). *Nomen nudum*, see Comments.

Chelonia subcarinata Gray 1844:53. *Nomen nudum*; manuscript name of *Ruppellii* included in the synonymy of *olivacea*.

Caouana dessumieri: Smith 1849:2. *Ex errore* [reference not seen].

Chelonia polyaspis Bleeker 1857:239. Type locality, "Batavia" [= Jakarta], Java; *nomen nudum*.

Lepidochelys olivacea: Girard 1858:435. First use of present combination.

Chelonia dubia Gray 1864:13. *Nomen nudum*; manuscript name of Bleeker, see Comments.

Cephalochelys oceanica Gray 1873a:91. *Nomen nudum*.

Cephalochelys oceanica Gray 1873b:408. Type locality, "West Coast of America— . . . Mexico;" restricted to "San Jose del Cabo, Baja California Sur," México (Smith and Smith 1980 [1979]:326). Holotype, The Natural History Museum, London (BMNH) 1947.3.5.40, attached head, neck, and forelimbs of adult; examined by authors.

Thalassiochelys [sic] *tarapacona* Philippi 1887:85. Type locality, "in Iquique," Chile. Holotype, not explicitly designated, subsequently identified as Museo Nacional de Historia Natural, Santiago (MNHNC) 1511 (*fide* Ortiz and Nuñez 1986), dry adult; not examined by authors.

Chelonia olivaccea: Velasco 1892:79. *Ex errore*.

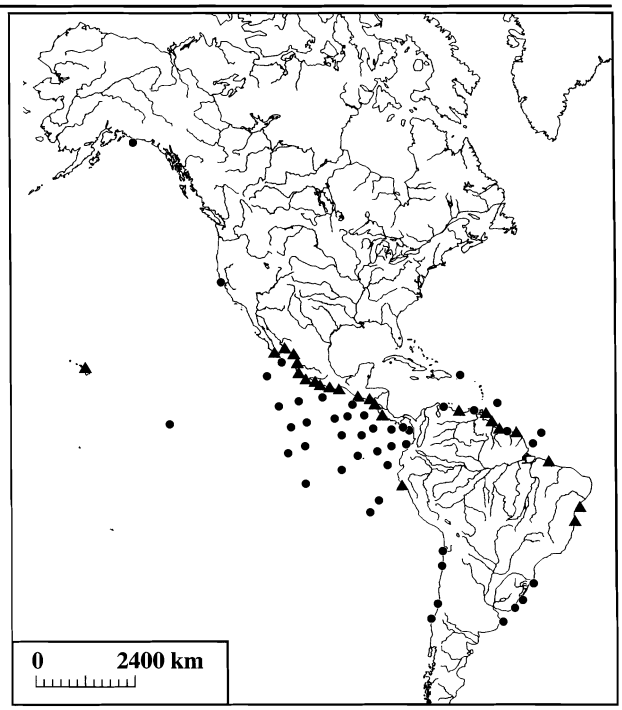
Thalassochelys controversa Philippi 1899:732. Type locality, "Quinteros," Chile. Lectotype, Museo Nacional de Historia Natural, Santiago (MNHNC) 1512 (Ortiz and Nuñez 1986), dry adult; not examined by authors.

Caretta remivaga Hay 1908:194. Type locality, "Ventosa Bay, Mexico." Holotype, U.S. National Museum (USNM) 243393 (original number O-9973), skull and mandible of unsexed adult; examined by authors.

Lepidochelys olivacea: Deraniyagala 1934:208. Reestablished current usage; see Comments.

• **Content.** This species consists of several breeding populations, but no geographic races are recognized. Mid-twentieth century use recognized three geographic races, one of which was *L. kempii*; however, this usage never gained wide currency.

• **Definition.** Adults are 525–735 mm (annual means for nesting females are 615–657 mm) in straight carapace length and 30–50 kg body mass. The carapace outline is broad obovate in adults with maximum width nearly equal to or occasionally greater than length. A series of 3–5 raised, well-developed, middorsal knobs commonly adorn the vertebral scutes of juveniles, but become porportionately smaller and lower with age, disappearing in most adults. The cervical scute touches the first anterior marginal, vertebral, and pleural scutes. Five or more pleural scutes occur on each side, commonly six; as many as eight or nine can be present, and one side can have more than the other. Each side of the carapace has 11–14 marginals. The bridge bears 3–5, usually four, large inframarginal scutes, commonly each with a musk gland pore situated medially on its posterior edge. The plastron lacks a hinge and has no or only a small intergular scute. The head is bullet-shaped and moderate in size, with the head length and width subequal and approximately 20–30% of the carapace length. It is covered with enlarged scales; dorsally, the nares lie in a single medial nasal scute, followed by two pairs of prefrontal scutes, a frontal, a parietal, and 3–4 postparietal (nuchal) scales. The horny sheath covering the upper jaw forms a distinct, hooked beak with unserrated lateral cutting rims. Each upper triturating surface has a single unserrated ridge bearing a middorsal cleft. The horny lower sheath is also strongly hooked at the tip and has unserrated lateral cutting rims. The paddle-like forelimbs (flippers) have enlarged scales along the leading and trailing edges and a claw (first digit) on the anterior edge. The hindfeet are webbed, with claws on first and second digits.

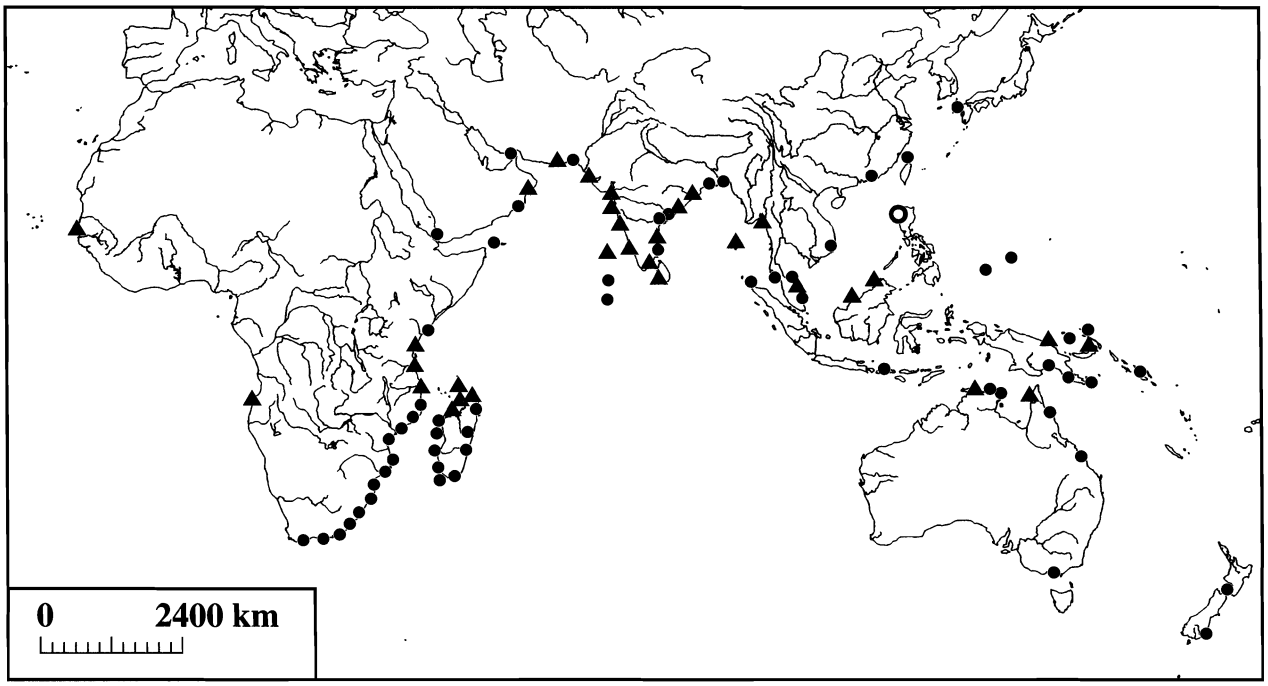


Map 1. Distribution of *Lepidochelys olivacea* in the Western Hemisphere; triangles indicate breeding beaches and dots mark other records. These data derive principally from Frazier and Salas (1982), Hughes (1974), Iverson (1992), Pitman (1990a), Reichart (1993), and Sternberg (1981). Because the nesting beach records are now nearly two decades old, some localities may no longer have viable nesting populations.

General coloration is grayish-green to olive-brown dorsally. The carapace and upper surfaces of the limbs and head are uniformly pigmented, with the skin somewhat grayer than the shell. The plastron, bridge, and undersides of the limbs and head are creamy white.

The diploid chromosome number is 56; 24 pairs of macrochromosomes (12 metacentric, 2 submetacentric, 2 subtelocentric, 8 telocentric) and 32 acrocentric microchromosomes (Bhunya and Mohanty-Hejmadi 1986).

Adult males have slightly longer carapaces and distinctly longer, thicker tails, which extend well beyond the posterior carapace rim. The female shell is broader and somewhat deeper, and the tail tip barely reaches the posterior rim of the carapace. During the breeding season, males have soft, concave plastra, a more gently sloping lateral profile, and a strongly developed,



Map 2. Distribution of *Lepidochelys olivacea* in the Eastern Hemisphere; the circle marks the type locality, triangles indicate breeding beaches, and dots indicate other records. These data derive principally from Frazier and Salas (1982), Hughes (1974), Iverson (1992), Pitman (1990a), Reichart (1993), and Sternberg (1981). Because the nesting beach records are now nearly two decades old, some localities may no longer have viable nesting populations.

curved claw on each forelimb. Hatchlings are 31–45 mm in straight carapace length; the carapace is cordiform in outline. Hatchlings are dark brown to olive-black dorsally and ventrally but become progressively lighter with age, first ventrally then dorsally.

• **Descriptions.** General descriptions are in Carr (1952), Cornelius (1983), Deraniyagala (1930, 1939, 1961), Eckert and Eckert (1993), Ernst and Barbour (1972, 1989), Ernst et al. (1994), Frazier (1984a), Garman (1880), Harris (1994), Hay (1908), Hughes (1974), Loveridge and Williams (1957), Mao (1971), Márquez (1990), Pritchard and Trebbau (1984), Reichart (1993), Schulz (1975), Smith and Smith (1980 [1979]), Smith (1931), Stebbins (1985), Villiers (1958), and Wermuth and Mertens (1961). Hatchlings or juveniles are described in Acuña Mésen (1990), Brongersma (1961, 1968a), Deraniyagala (1939), Ernst and Barbour (1972, 1989), Ernst et al. (1994), Iwasaki et al. (1996), Pritchard and Trebbau (1984), Reichart (1993), Schulz (1975), Smith and Smith (1980 [1979]), and Werler (1951).

Other descriptions are as follows: eggs (Acuña Mésen 1984; Deraniyagala 1939; Ernst and Barbour 1972, 1989; Ernst et al. 1994; Ewert 1985; Márquez 1990; Miller 1985; Sahoo et al. 1996; Werler 1951), embryology (Crastz 1982, Deraniyagala 1939, Ewert 1985, Reichart 1993), skull (Duron-Dufrenne and Bour 1989, Hay 1908), shell abnormality (Pritchard 1966), karyotype (Bhunya and Mohanty-Hejmadi 1986), and swimming behavior (Davenport and Pearson 1994).

• **Illustrations.** Color illustrations of adults are in Bruemmer (1995), Butler (1995), Cornelius (1986), Ernst and Barbour (1972, 1989), Ernst et al. (1994), Glaw and Vences (1994), Pritchard and Trebbau (1984), Rudloe and Rudloe (1994), and Zhou and Zhou (1991). Black and white photographs or drawings of adults are in Bustard (1972), Ernst and Barbour (1972, 1989), Ernst et al. (1994), Frazier (1984a, 1985), Hughes (1972), Hughes and Richard (1974), King and Burke (1989), Loveridge and Williams (1957), Márquez (1990), Misra (1990), Owens et al. (1985), Pritchard (1969 a, b, c), Schulz (1975), Stebbins (1985), Villiappan and Whitaker (1974), and Wermuth and Mertens (1961).

Hatchling or juveniles are illustrated either in color or black and white in Biswas (1982), Bruemmer (1995), Eschscholtz (1829), Frazier (1985), Iwasaki et al. (1996), Pritchard and Trebbau (1984), Rudloe and Rudloe (1994), and Zwinenberg (1976). Various aspects of the eggs are illustrated in Bellairs and Kamal (1981), Lagueux (1991), Villiappan and Whitaker (1974). Embryonic development is presented in Crastz (1982), Deraniyagala (1939), Márquez (1990), and Obst (1988). Other illustrations are as follows: carapace (Acuña Mésen 1984, Bustard 1972, Deraniyagala 1939, Hubbs 1977, Márquez 1990, Obst 1988, Pritchard 1969b, Pritchard and Trebbau 1984, Reichart 1993, Silva-Batiz et al. 1992, Varona 1974, Zangerl 1980), plastron or bridge (Bons and Girot 1962; Brongersma 1961, 1968b, 1972; Deraniyagala 1939, 1943; Hay 1908; Hubbs 1977; Márquez 1990; Pritchard 1966, 1969b; Pritchard and Trebbau 1984; Reichart 1993; Shaw 1946), neural bones (Pritchard 1969b), pelvis (Deraniyagala 1939), skull or jaws (Brongersma 1961, 1972; Carr 1942, 1952; Deraniyagala 1939; Duron-Dufrenne and Bour 1989; Gaffney 1979; Hay 1908; Pehrson 1945; Pritchard and Trebbau 1984; Reichart 1993; Wermuth and Mertens 1961), neck (Deraniyagala 1939), head or head scales (Brongersma 1961, 1972; Hubbs 1977; Hughes 1972; Pritchard 1969b), limb scales (Acuña Mésen 1990), gonads (Merchant-Larios and Villalpando 1990; Mohanty-Hejmadi and Dimond 1986), karyotype (Bhunya and Mohanty-Hejmadi 1986), nesting beach (Casas-Andreu 1978, Cornelius et al. 1991, Hughes and Richard 1974, Pandav et al. 1997a), and nesting female (Cornelius et al. 1991, Ernst et al. 1994, Hughes and Richard 1974, Zwinenberg 1976).

• **Distribution.** *Lepidochelys olivacea* is an epipelagic turtle of the Pacific, Indian, and south Atlantic Oceans, although locality records from the open ocean are rare. They return to coastal waters only to nest, with the largest nesting beaches on the Pacific coast of Central America from México to Panamá, Atlantic coast of South America in eastern Venezuela to Suriname, in southern Asia at scattered localities from Pakistan to Orissa, India, central Andaman Islands, and eastern Malaysia; and on the Atlantic coast of southcentral West Africa in Angola (Sternberg 1981). The largest mass nestings (arribadas) occur

annually at Escobilla, Oaxaca, México; Nancite and Ostional, Costa Rica; and Gahirmatha and Rushikulya, Orissa, India.

General information on distribution is available in Anonymous (1990f), Aranda (1989), Arenas and Hall (1991), Brito Montero (1995), Brongersma (1982), Brown and Brown (1982), Burgos and Cruz (1983), Carr (1957), Carr and Carr (1991), Chandler (1991), Chatto et al. (1995), Cornelius (1982), Cornelius and Robinson (1982), de Celis (1982), Deraniyagala (1939), Dupuy (1986), Ernst and Barbour (1989), Frazier (1980, 1982b, 1984b, 1990, 1991), Frazier et al. (1987), Frazier and Salas (1983, 1984), Fritts (1981), Glaw and Vences (1994), Graff (1995), Green and Ortiz-Crespo (1982), Groombridge et al. (1988), Guinea (1992), Hall et al. (1991), Hare (1991), Harris (1994), Houck and Joseph (1958), Hughes (1974), Hughes et al. (1973), Hurtado (1982a,b), Iverson (1986, 1992), James (1977), Kar (1983), King and Burke (1989), Lierheimer et al. (1989a, b, 1990a, b), Limpus and Roper (1977), Márquez (1976, 1990), Meylan (1982), Mrosovsky (1979a, b), Neill (1958), Niceforo-Maria (1953), Oliver (1946), Owens (1993), Pandav et al. (1995), Pitman (1990a), Plotkin (1994b), Prince (1993), Pritchard (1967, 1969b, 1973, 1976, 1982a, 1989), Pritchard and Trebbau (1984), Reichart (1993), Robinson (1978), Rueda (1990), Sasa and Solorzano (1995), Schmidt (1953), Schulz (1975), Suwelo (1985), Tecpetrol and Acuña (1996), Trono (1991), Uchida and Nishiwaki (1982).

Specific data on the occurrence of juveniles are in Carr (1957), Carr and Carr (1991), Deraniyagala (1939), Graff (1995), Harris (1994), Kar (1980a), Limpus (1982), Owens (1993), Pasteur and Bons (1960), Pritchard (1982a), Reichart (1993), Schulz (1975), and Varona (1974). Data on nesting are in Andrews (1992, 1993), Anonymous (1977, 1993b, c), Balazs and Hau (1986), Banerjee (1984), Bhaskar (1978, 1979, 1983), Bhaskar and Andrews (1993), Blough (1982), Bustard (1972), Butler (1995), Caldwell and Erdman (1969), Caldwell and Casebeer (1964), Carr (1979), Carr and Carr (1991), Cliffton et al. (1982), Cornelius (1976, 1982, 1985), Cornelius and Robinson (1981, 1982, 1983), Das (1986), de Silva (1982), Deraniyagala (1939), Drake (1993, 1996), Dugés (1896), Dutta (1990), Eckert and Eckert (1993), Ernst and Barbour (1989), Flores (1969), Frazier (1981, 1982a, b, 1984b, 1990), Fretey and Malaussena (1991), Giral (1955), Godley et al. (1993), Harris (1994), Hewavisenthi (1990a, b, 1993), Higginson (1989), Higginson and Vasquez (1989), Hughes (1974), Hughes and Richard (1974), Kar (1980b, 1982, 1983), Kar and Bhaskar (1982), Limpus (1982), Marcovaldi (1987), Marcovaldi and Laurent (1996), Márquez (1976, 1990), Medem (1958), Meylan (1982), Minarik (1985a, b), Misra (1990), Mohanty-Hejmadi (1983, 1987), Mohanty-Hejmadi et al. (1989), Moll et al. (1983), Mortimer (1990), Mrosovsky (1979a), Mrosovsky and Pritchard (1971), Nielsen (1992), Obst (1988), Pandav (1995), Pandav et al. (1994, 1997a), Peñaflores (1981), Pritchard (1969a, b, 1973, 1984b, 1988, 1989), Pritchard and Trebbau (1984), Rao (1984), Reichart (1993), Richard and Hughes (1972), Robinson (1982), Ross (1978), Ross and Barwani (1982), Schulz (1975, 1982), Silva-Batiz et al. (1992), Smith and Houck (1984), Solorzano (1963), Soto and Beheregaray (1997), Spring (1982), Tow and Moll (1982), Wickramsinghe (1982), and Woody (1986).

• **Fossil Record.** None.

• **Pertinent Literature.** General accounts are in Brongersma (1972), Bustard (1972), Carr (1942, 1952), Cliffton et al. (1982), Cornelius (1983, 1986), Ernst and Barbour (1972, 1989), Ernst et al. (1994), Frazier (1984b), Harris (1994), Loveridge and Williams (1957), Mao (1971), Márquez (1990), Márquez et al. (1976), Mohanty-Hejmadi and Sahoo (1994), Mrosovsky (1983a), Pope (1939, 1956), Pritchard (1976, 1979, 1989), Pritchard and Trebbau (1984), Rebel (1974), Reichart (1989, 1993), Schulz (1975), Smith and Smith (1980 [1979]), Smith (1931), Stebbins (1985), Villiappan and Whitaker (1974), Villiers (1958), Walker (1959), Wilbur and Morin (1988), Zhou and Zhou (1991) and Zwinenberg (1976, 1977).

Other papers are listed by topic as follows: systematics and taxonomy (Baur 1890; Bons and Girot 1962; Brongersma 1982; Carr 1942; Deraniyagala 1939, 1943, 1961; Dozy et al. 1964; Frair 1979; Frazier 1985; Garman 1880; Hay 1908; King and Burke 1989; Mertens and Wermuth 1961; Reichart 1993; Wermuth 1956; Wermuth and Mertens 1961, 1977; Zangerl 1980), evolution (Avise et al. 1992, Bowen 1995, Bowen et al. 1991), genetics (Avise et al. 1992, Bowen 1995, Bowen et al. 1991, Demas et al. 1990), karyotype (Bhunya and Mohanty-Hejmadi 1986, Mohanty-Hejmadi 1992, Nakamura 1937), zoogeography (Carr 1957, Carr and Caldwell 1958, Schmidt 1945, Smith 1954, Smith 1962), general morphology (Frazier 1984a, Frazier et al. 1988, Mack et al. 1982), skull (Bellairs and Kamal 1981, Duron-Dufrenne and Bour 1989, Fuchs 1920, Gaffney 1979, Pehrson 1945), shell (Acuña Mesén 1984; Mlynarski 1961; Mohanty-Hejmadi 1992; Pritchard 1966; Vallen 1942; Wibbels et al. 1991; Zangerl 1958, 1980; Zangerl and Turnbull 1955), limbs (Acuña Mesén 1990), nares (Parsons 1968, Walker 1959), nasal glands (Dantzler and Holmes 1974), endocrine glands (Gabe and Montoja 1962, Yamamoto 1960), esophageal spines (Yoshie and Honma 1976), endocrinology (Figler et al. 1989, Follett 1967, Licht 1982, Licht et al. 1982, Owens 1980, Owens and Morris 1985, Owens et al. 1989, Valverde 1996, Valverde et al. 1994), blood (Bartlett 1978; Dessauer 1970; Dozy et al. 1964; Frair 1969, 1977a, b; Friedman et al. 1985; Mohanty-Hejmadi et al. 1984; Owens and Ruiz 1980), body fluids (Dessauer 1970, Smith 1929, Thorson 1968), gas exchange (Ackerman 1980), kidney function (Prange 1985), neurology (Bergquist 1952, 1953; Bergquist and Kallen 1953a, 1953b), cloacal bursae (Smith and James 1958), skin glands (Ehrenfeld and Ehrenfeld 1973), oils (Giral and Cascajares 1948), temperature relationships (Mrosovsky and Pritchard 1971, Spotila and Standora 1985, Standora and Spotila 1985), mating (Frazier 1984a; Hubbs 1977; Kalb et al. 1995; Plotkin et al. 1995a, b), sperm storage (Gist and Jones 1989), nesting (Aprill 1994; Bruemmer 1995; Butler 1995; Caldwell and Casebeer 1964; Casas-Andreu 1978; Chantrapornsyl and Bhatiyasevi 1994; Dodd 1978; Drake 1996; Eckrich and Owens 1995; Ehrhart 1982; Fretey and Malaussena 1991; Godley et al. 1993; Graff 1996; Hendrickson 1982; Hirth 1980; Hughes 1982; Hughes and Richard 1974; Kalb and Owens 1994; Kar 1982; Maturbongs 1996; Minarik 1985b; Misra 1990; Mohanty-Hejmadi 1987, 1992; Mortimer 1982a; Pritchard 1969a; Richard and Hughes 1972; Ruitrago 1982; Ruiz 1994), eggs (Ackerman 1980; Acuña-Mesén 1992; Biswas et al. 1977; Crastz 1982; Ewert 1979, 1985; Hewavisenthi 1994a; Hirsch 1983; Lagueux 1991; Miller 1985; Sahoo et al. 1996; Tominaga 1955; Werler 1951), embryology (Bergquist 1952, 1953; Crastz 1982; Ewert 1979, 1985; Miller 1985; Mohanty-Hejmadi 1992; Pehrson 1945; Vallen 1942), temperature sex determination (Demas et al. 1990, Gondinez-Dominquez and Silva-Batiz 1994, McCoy et al. 1983, Merchant-Larios and Villalpando 1990, Mohanty-Hejmadi et al. 1985, Mohanty-Hejamdi and Dimond 1986, Standora and Spotila 1985), hatchlings (Acuña Mesén 1990; Carr 1980, 1987; Hewavisenthi 1990b, 1994a; Mohanty-Hejmadi 1992;), hatchling survival (Araúz-Almengor and Mo 1994a, 1994b; Mohanty-Hejmadi 1992;), growth (Hirth 1982, Mohanty-Hejmadi 1992, Phasuk and Rongmuangsart 1973), captive behavior (Parrish 1958), movements (Acuña Mesén 1988; Arenas and Hall 1991; Beavers and Cassano 1996; Brito Montero 1995; Byles and Plotkin 1984; Carr 1980; Cornelius and Robinson 1986; Firdous 1991; Frazier 1980; Hall et al. 1991; Meylan 1982; Peñaflores 1981; Plotkin 1994b; Plotkin et al. 1994a, b, 1995b, 1996; Pritchard 1969a, b, 1976, 1985), swimming behavior (Davenport and Pearson 1994, Walker 1971), diving (Beavers and Cassano 1996, Plotkin et al. 1996), pre-nesting behavior (Plotkin et al. 1991, 1995, 1997; Richard and Hughes 1972), chemical orientation (Owens et al. 1982, 1985), feeding (Fritts et al. 1982, Mortimer 1982b), general ecology (Carr 1980, Cornelius 1986, Hendrickson 1980), beach ecology (Dodd 1978, Gates et al. 1996, Mohanty-Hejmadi 1992, Mortimer 1982a, Pandav et al. 1997), population status (Araúz-Almengor and Morera-Avila 1994; Biswas 1982, Bjorndahl 1993; Brown and Brown 1982; Carr and Carr 1991; Cliffton et al. 1982; Cornelius 1982, 1985; Cornelius and Robinson 1983; Das 1994; de Silva 1982; Drake 1993; Dupuy 1986; Frazier 1981, 1982a, b; Fritts et al. 1982; Green and Furtando 1980; Green and Ortiz-Crespo 1982; Groombridge et al. 1988; Harris 1994; Hoekert et al. 1996;

Hughes 1972, 1974; Kaiya 1983; Kar 1980b, 1982; Kar and Bhaskar 1982; Limpus 1982; Mack 1983; Márquez et al. 1982a, b, 1996; Minarik 1985a; Mrosovsky 1983c; Nareshwar 1994; Oliver 1946; Pandav et al. 1995; Pritchard 1969c, 1982a, b, 1984b, 1988; Ramirez de Veyra 1994; Reichart 1989; Ross 1978, 1982; Ross and Barwani 1982; Shulz 1982; Swanson 1989; Tiwari 1994; Tow and Moll 1982; Uchida and Nishiwaki 1982; Vargas Molinar 1973), conservation and management (Anonymous 1982a, 1984; Araúz-Almengor et al. 1994; Aridjis 1990; Baker 1994; Balazs and Pooley 1994; Berry 1989; Bhaskar and Andrews 1993; Bolton et al. 1996; Chantrapornsyl and Bhatiyasevi 1994; Chaves et al. 1994; Cornelius and Robinson 1981, 1982; Cornelius et al. 1991; Das 1986; Dash and Kar 1990; de Celis 1982; Donnelly 1990, 1991; Eckert 1991a, b, 1993; Eckert and Eckert 1993, 1994; Frazier 1990; Frazier and Salas 1982; Guinea and Whiting 1997; Hewavisenthi 1990a, 1993, 1994b; Higginson 1989; Hillestad et al. 1982; Hughes et al. 1973; Hurtado 1982a, b; Jenkins and Broad 1994; Juarez and Muccio 1997; Marcovaldi 1987; Márquez 1976; Mohanty-Hejmadi 1983, 1986, 1992; Mohanty-Hejmadi and Das 1986; Mohanty-Hejmadi et al. 1985; Moll et al. 1983; Morales and Vargas 1996; Mortimer 1990; Mrosovsky 1983a, 1989, 1993; Nareshwar 1994; Nielsen 1992; Pandav et al. 1997a, b; Plotkin 1994a; Prince 1993; Pritchard 1969b, 1984a; Rayburn 1989; Robinson 1978, 1982; Rudloe and Rudloe 1994; Shanker 1994; Singh 1996; Tambiah 1994; Tow and Moll 1982; Trono 1991; Vargas et al. 1994; Weber 1989; Woody 1986), husbandry (Banerjee 1984, Biswas et al. 1977, Hewavisenthi 1994b, Higginson and Vasquez 1989, Silva-Batiz et al. 1992, Wickramsinghe 1982, Williams et al. 1996), predation (Anonymous 1979, Aprill 1994, Autar 1994, Eckrich and Owens 1995, Frazier 1982c, Frazier et al. 1994, Mohanty-Hejmadi 1992, Mora and Robinson 1984, Mrosovsky 1979a, Nelson and Mo 1996, Ortiz et al. 1997, Pritchard 1971, Stancyk 1982, Suwelo 1985, Vijaya 1982), parasites (Brooks and Frazier 1980, Ernst and Ernst 1977, Hughes et al. 1941, Mohanty-Hejmadi 1992, Oguro 1942, Pérez-Ponce de León et al. 1996, Pritchard 1969a, Yamaguti 1934), diseases (Acuña-Mesén 1992, Banerjee et al. 1986, Herbst 1994, Herbst and Jacobson 1995, Rueda 1990, Sundberg et al. 1984), commensals (Ernst and Barbour 1972, Hiro 1936, Mohanty-Hejmadi et al. 1989), abnormalities (Hewavisenthi 1990b, Mora and Robinson 1982, Pritchard 1966, Shaw 1946), accidents and injuries (Ballestero and Segura 1994, Chatto et al. 1995, Frazier et al. 1994, Guinea and Chatto 1992, Hare 1991), mutilation marking (Burgos and Cruz 1983, Castro and Arauz 1993, Kar 1980a, Mrosovsky 1979b; Nishemura, 1990), heavy metal pollution (Witkowski and Frazier 1982), economic importance (Cornelius et al. 1991, Lagueux 1991), vernacular names (Banks et al. 1987, Collins 1990, Dundee 1992, Liner 1994, Mittermeier et al. 1980); and miscellanea (Anonymous 1982b, 1987, 1990a, b, c, d, e, f, 1991a, b, c, d, 1992, 1993a; Canin 1991; Cornelius 1975; Mack 1983; Mack et al. 1982; Mohanty-Hejmadi 1986; Mrosovsky 1982, 1983b, c).

• **Etymology.** The name *olivacea* is from the Latin, *oliva,* referring to the yellowish-green color of unripened fruit of the olive tree.

• **Comments.** Two specific names predate *Chelonia olivacea* Eschscholtz 1829: *Testudo mydas minor* Suckow 1798 and *Chelonia multiscutata* Kuhl 1820. The assignment of *minor* to a known taxon remains uncertain owing to a poor description and conflicting type locality data. Wilson and Zug (1991) considered it a synonym of *Lepidochelys kempii*, but *minor* is not nomenclaturally available because it was officially rejected by the International Commission of Zoological Nomenclature in 1963. Brongersma (1961) reviewed the status of *Chelonia multiscutata* and concluded that the description refers to a specimen of *L. olivacea*. He concluded that although the name *multiscutata* is the first available and valid name for this taxon, it should be suppressed. Smith and Smith (1980 [1979]) agreed with Brongersma's assessment of *multiscutata* and indicated that an application has been submitted to the International Commission of Zoological Nomenclature to suppress *multiscutata*; we are not aware that the Commission has acted on that application. Nevertheless, we consider the absence of Kuhl's name from the literature for over a century to be sufficient cause to consider it a *nomen oblitum*, thereby giving *olivacea* priority of use (Article 79.c, Internatl. Code Zool. Nomencl. 3rd ed. 1985).

Duméril and Bibron (1835) proposed *Chelonia Dussumierii* as a replacement name for *Chelonia olivacea* Eschscholtz but gave no reason for the substitution. They mentioned the location of the specimens examined but did not specify particular specimens. Their specimens were later identified as Museum National d'Histoire Naturelle (MNHN) 898–899 in an 1864 catalogue-manuscript; they are now MNHN 7908 and 8009 (R. Bour, pers. comm., 11 March 1997). Bour also noted: "It must be remembered that quite often 'types' of D. & B. are not types; in the case of *Ch. dussumieri*, for instance, they clearly indicated that they considered their 'new' species as synonym of *Ch. olivacea*." Following Bour's interpretation, MNHN 7908 and 8009 are not types but referred specimens for D. & B. 1835 *dussumieri.*

Caouana Ruppellii Gray 1844 was proposed in a specimens-examined list of *Caouana caretta* for an especially large head. The large head would suggest that *C. ruppellii* more properly belongs in the synonymy of *Caretta caretta*. The type specimen could not be located (C.J. McCarthy and C. Ernst, August 1996; its presumed loss later confirmed by C.J. McCarthy, pers. comm., November 1996). Brongersma (1961) examined the nomenclatural status of other names and noted that *Cephalochelys oceanica* Gray 1873b is an available name for the eastern Pacific populations of *L. olivacea* and is senior synyomym of *Caretta remivaga* Hay 1908.

Bleeker (1857) proposed *Chelonia polyaspis* in a list of Javanese taxa without identifying a particular specimen and without a description. Gray (1864) noted receipt in the British Museum (BMNH) of two young *Chelonia* from Bleeker, one labeled *C. dubia* and the other *C. polyaspis*; he further noted, "it is not possible to determine the species from [these] specimens." Gray provided no description of either taxon so they remain *nomina nuda*. Later, Gray (1873a) identified these specimens as being from Borneo and their catalogue numbers as BMNH 63.12.4.122 and 51.2.14.24, respectively. Brongersma (1961) identified each as a hatchling of *L. olivacea*. They are at best presumptive types based on data and notes reconstructed by past curatorial staff. No nomenclatural purpose is served by the attachment of these names to specimens.

Frazier (1985) reviewed the status of the two Chilean specific names, *Thalassochelys tarapacona* and *T. controversa* of Philippi (1887, 1899, respectively). Frazier and two predecessors showed that the purported types of both species are specimens of *L. olivacea* and not *C. caretta*, as had been previously supposed by Northern Hemisphere researchers; he listed the catalogue/registration numbers as MNHNC 100225 and 100226, respectively. Subsequently, Ortiz and Nuñez (1986), in a list of reptilian type specimens in the Museo Nacional de Historia Natural, Santiago (MNHNC), discussed the condition and status of Philippi's specimens. They noted that *T. controversa* was based on three syntypes and they selected a lectotype, MNHNC 1512. *Thalassochelys tarapacana* was represented by a single specimen, MNHNC 1511. Nuñez (pers. comm., April 1997) noted that numbers cited by Frazier resulted from an earlier attempt by the museum to reorganize the herpetological collection; those numbers are no longer valid.

The confusion of names resulted from the confusion over the specific identity of Olive Ridley, Kemp's Ridley (*L. kempii*), and Loggerhead (*Caretta caretta*) seaturtles. Deraniyagala (1933) resolved the issue by recognizing the morphological distinctiveness of these species. A year later, Deraniyagala (1934) reintroduced the use of *Lepidochelys* for *kempii* and *olivacea*, although the real transition in usage was initiated by the use of these names in the checklist by Stejneger and Barbour (1943). Brongersma (1961) and Smith and Smith (1980 [1979]) provide more detailed nomenclatural histories.

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